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CENTER FOR POLITICAL STUDIES

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September 23, 1983

TO: NES 1984 Planning Committee

FROM: Celinda Lake (NES Staff)

RE: Similarity and Representativeness
of 1983 Pilot Samples

Part I - Comparison of A & B Pilot Samples

Some questions have been raised about the similarity of the A and B pilot samples and of their representativeness of the 1982 study. To address these questions we have run the following analysis. First we compared the A and B pilot respondents for Wave I across a wide range of demographic and political variables. We used chi-square tests and the more powerful Mann Whitney tests (where appropriate with non-dichotomous, ordinal variables) to test the significance of any distribution variations between Pilot A and Pilot B. Throughout this analysis, all comparisons are made on responses in the 1982 survey to political and demographic questions.

As you will see in the tables below, across age, education, working (employment) status, race, sex, marital status, union membership, religion, type of community of residence, occupation, family income, family status, party identification, liberal-conservative self-placement, reported turnout in the 1982 election, and interest in political campaigns in 1982, no significant differences (at the .05 level) emerged between the two pilots. R's income, church attendance, trust in government, and length of residence, which are not reported in the tables below, also showed no significant differences between Pilots A and B.

There are some variations in the distributions of responses for the respondents to Pilot A and the respondents to Pilot B--most notably a 9% difference in turnout, a 6% difference in sex, and a higher mean family income--but because of the small sample sizes none of these is significant. Other smaller (and insignificant) variations in marital status, union membership, and family status follow from the variation in percentage male and female in the two samples.

Because of the difference in response rates for Pilots A and B in the second wave and the difference in the composition of the nonresponse, for those two samples, we also ran comparisons of Wave 2 respondents for Pilots A and B. Again, however, no significant differences emerge between the two samples in our list of demographic and political variables.

Part I. TablesComparison of Sample A vs. Sample B (Wave 1 respondents)Demographic TablesI. Age (Bracketed)

	<u>Pilot A</u>	<u>Pilot B</u>
18-25 yrs	12.0%	9.0%
26-35 yrs	24.1	22.4
36-45 yrs	22.8	19.2
46-55 yrs	12.7	14.7
56-65 yrs	16.5	19.9
66 & over	12.0	14.7
	(158)	(156)
Mean	44.5 years	46.9 years
Chi-Square	2.44 (5df)	Prob.=0.79
Mann Whitney	11,244.5 (1.365%)	Sig. =0.17

II. Summary Education

	<u>Pilot A</u>	<u>Pilot B</u>
8 grades or less	5.7%	9.0%
8 grades or less (plus training)	1.9	1.3
9-11 grades	10.1	7.1
9-11 grades (plus training)	0.6	3.2
High school diploma	18.4	16.1
High school diploma (plus training)	9.5	15.5
Some college	23.4	21.9
Junior or community college	3.2	1.3
BA degree	18.4	12.3
Advanced degree	8.9	12.3
	(158)	(155)
Chi-Square	11.48 (9df)	Prob.=0.25
Mann Whitney	11,771.5 (0.599%)	Sig. =0.55

III. Working Status

	<u>Pilot A</u>	<u>Pilot B</u>
Working Now	58.6%	61.5%
Temporarily Laid Off	0.6	1.9
Unemployed	5.7	3.8
Retired	10.8	12.2
Permanently Disabled	1.9	1.3
Housewife	19.1	17.3
Student	3.2	1.9
	(157)	(156)
Chi-Square	2.65 (6 df)	Prob.=0.85

IV. Race

	<u>Pilot A</u>	<u>Pilot B</u>
White	90.5%	88.5%
Black	7.6	11.5
Other	1.9	0.0
	(158)	(156)
Chi-Square	4.28 (2 df)	Prob.=23

V. Sex

	<u>Pilot A</u>	<u>Pilot B</u>
Male	44.3%	38.5%
Female	55.7	61.5
	(158)	(156)
Chi-Square	1.10 (1 df)	Prob.=0.29

VI. Marital Status

	<u>Pilot A</u>	<u>Pilot B</u>
Married	58.9%	63.5%
Never Married	16.5	12.2
Divorced	9.5	10.9
Separated	2.5	2.6
Widowed	10.8	9.6
Common Law	1.9	1.3
	(158)	(156)
Chi-Square	1.71 (5 df)	Prob.=0.89

VII. Labor Union

	<u>Pilot A</u>	<u>Pilot B</u>
Union Household	17.7%	23.2%
Non-Union Household	82.3	76.8
	(158)	(155)
Chi-Square	1.46 (1 df)	Prob.=0.23

VIII. Religion

	<u>Pilot A</u>	<u>Pilot B</u>
Protestant	71.1%	76.1%
Catholic	28.1	21.8
Jew	0.7	2.1
	(135)	(142)
Chi-Square	2.24 (2 df)	Prob.=0.33

IX. Type of Community

	<u>Pilot A</u>	<u>Pilot B</u>
On a farm	24.7%	20.0%
In the country	10.8	12.3
In a small city	26.6	32.3
Medium-sized city	11.4	7.1
Large city	10.8	11.6
Suburb of large city	7.0	4.5
Very large city	6.3	9.0
Suburb of very large city	2.5	3.2
	(158)	(155)
Chi-Square	5.08 (7 df)	Prob.=0.65

X. Occupation

	<u>Pilot A</u>	<u>Pilot B</u>
Professional & Manager	39.1%	41.2%
Sales Workers/Clerical	14.5	14.9
Craftspersons	10.9	18.4
Blue Collar	28.2	21.9
Agriculture	7.3	3.5
	(110)	(114)
Chi-Square	4.57 (4 df)	Prob.=0.33

XI. Family Income

	<u>Pilot A</u>	<u>Pilot B</u>
Less \$5,000	13.0%	9.8%
\$5,000-9,999	13.0	11.2
\$10,000-14,999	12.3	9.1
\$15,000-19,999	11.0	7.7
\$20,000-24,999	13.7	14.7
\$25,000-29,999	8.2	10.5
\$30,000-34,999	8.9	12.6
\$35,000-49,999	11.6	13.3
\$50,000 +	8.2	11.2
	(146)	(143)
Chi-Square	4.56 (8 df)	Prob.=0.08
Mann Whitney	9,168.5 (1.8%)	Sig. =0.07

XII. Family Status

	<u>Pilot A</u>	<u>Pilot B</u>
R family head, no spouse	36.1%	30.1%
R family head, living w/spouse	31.6	29.5
R not family head	32.3	40.4
	(158)	(156)
Chi-Square	2.38 (2 df)	Prob.=0.30

Political Variables

I. Party Identification

	<u>Pilot A</u>	<u>Pilot B</u>
Strong Democrats	16.5%	23.2%
Weak Democrats	24.1	23.2
Independent Democrats	15.2	11.6
Independent	12.0	11.0
Independent Republicans	8.9	8.4
Weak Republicans	11.4	12.3
Strong Republicans	10.1	10.3
Apoliticals	1.3	0.0
	(158)	(155)
Chi-Square	5.67 (8 df)	Prob.=0.69
Mann Whitney	11,417.5 (1.049%)	Sig. =0.295

II. Liberal-Conservative Self-Placement 7-Point Scale

	<u>Pilot A</u>	<u>Pilot B</u>
1 Liberal	0.9%	1.8%
2	8.9	8.1
3	16.1	7.2
4	34.8	36.0
5	20.5	29.7
6	15.2	12.6
7 Conservative	3.6	4.5
	(112)	(111)
Chi-Square	6.43 (6 df)	Prob.=0.38
Mann-Whitney	5,710.5 (1.085%)	Sig. =0.28

III. Turnout

	<u>Pilot A</u>	<u>Pilot B</u>
Yes	60.1%	69.2%
No	39.9	30.8
	(158)	(156)
Chi-Square	2.85 (1 df)	Prob.=0.09

IV. Interest in Political Campaigns

	<u>Pilot A</u>	<u>Pilot B</u>
Very Much	30.4%	32.3%
Somewhat	44.3	41.9
Not Much	25.3	25.8
	(158)	(155)
Chi-Square	0.20 (2 df)	Prob.=0.91
Mann-Whitney	12,115.000 (0.17%)	Sig. =0.86

Part II. Comparison of Pooled Pilot Samples
to the Remaining 1982 Sample

To look at the representativeness of the pilot studies' samples to the 1982 election study respondents, we ran two comparisons. First, we compared the distribution on one subset of demographic and political variables of all people initially chosen to be in the pilot study (i.e., the original pilot samples) with the remaining (nonpilot) respondents of the 1982 election study. Second, we compared the actual respondents to Wave 1 of the Pilots with the same group of nonpilot respondents from the 1982 election study--dropping from the comparison nonrespondents to the pilot study. This allows us to distinguish sampling induced error from response induced bias and error since we would expect response rates to vary systematically by certain political and demographic traits for any re-interview. We have compared the 1982 nonpilot cases to the pilot cases to maintain the independence of our samples required by our tests of significance.

Again, in our analysis of sampling error, no significant differences emerge at the .05 level between those replicates chosen for the pilot study and the remaining replicates of the 1982 election study on age, education, employment status, race, sex, marital status, union membership, religion, type of community of residence, occupation, family income, family status, party identification, liberal-conservative self-placement, 1982 election voting turnout, and 1982 interest in political campaigns. These comparisons are included in the tables below. Also, on measures of R's income, church attendance, length of residence, and political trust, which are not included in these tables, no significant differences emerged.

When we look at response effects, some significant differences do emerge. They are in distributions of well-established correlates of response--education (significant at the .06 level for the chi-square test at the .03 level for the more powerful Mann Whitney test), political interest in the 1982 campaign, and age. Actual respondents to the pilot were significantly more highly educated than the nonpilot sample--26% of the pilot respondents and 17% of the nonpilot sample had a college B.A. degree or more in 1982. (It should be noted that the larger sample sizes have made smaller differences statistically significant in Part II. comparisons.)

Pilot respondents were also 6% more likely to be interested in political campaigns in 1982 than members of the non-sample replicates. (Note the 1983 sampling of replicates was done after stratifying for general political interest. We have thus used interest in the 1982 campaign here, although response error could still have been reflected in the other interest measure after controlling for sampling error.)

Finally, pilot respondents appear significantly older than non-pilot cases using bracketed age. This difference, however, disappears when unbracketed age is used. (The chi-square and Mann Whitney tests for the unbracketed age comparison are: Chi-square 85.97 (74 df) prob. = 0.17 and Mann Whitney 150, 686.00 (0.993E) Sig. = 0.32.)

Part II. TablesComparison of 1982 Sample in the Pilot
and 1982 Sample in Non-Pilot ReplicatesDemographic TablesI. Age (Bracketed)

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
18-25 yrs	15.5%	11.5%	10.5%
26-35 yrs	24.7	23.3	23.0
36-45 yrs	14.4	20.2	21.1
46-55 yrs	12.9	12.0	13.7
56-65 yrs	15.5	16.3	18.2
66 & over	17.0	16.6	13.4
Mean	(1000) 45.1	(416) 46.1	(313) 45.7
Chi-Square	9.91 Prob.=0.08	14.14 Prob.=0.02**	
Mann Whitney	200,619.5 (1.070Z) Sig.=0.29	151,532.5 (0.86Z) Sig.=0.39	

II. Summary Education

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
8 grades or less	9.8%	8.7%	7.4%
8 grades or less (plus training)	1.6	2.2	1.6
9-11 grades	9.7	10.4	8.7
9-11 grades (plus training)	2.1	1.9	1.9
High school diploma	20.1	18.8	17.3
High school diploma (plus training)	14.6	12.0	12.5
Some College	21.3	21.0	22.4
Junior or Community College	3.7	1.9	2.2
BA Degree	10.9	13.7	15.4
Advanced Degree	6.0	9.4	10.6
	(998)	(415)	(312)
Chi-Square	12.48 (9 df) Prob.=0.19	16.18 Prob.=0.06	
Mann Whitney	197,223.5 (1.43Z) Sig.=0.15	138,303.0 (3.017Z) Sig.=0.03	

III. Working Status

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Working Now	56.6%	58.3%	59.9%
Temporarily Laid Off	0.5	1.2	1.3
Unemployed	7.2	4.3	4.8
Retired	15.1	14.0	11.5
Permanently Disabled	2.9	1.7	1.6
Housewife	14.9	18.3	18.3
Student	2.8	2.2	2.6
	(1001)	(416)	(312)
Chi-Square	10.52 (6 df) Prob.=0.10	10.04 Prob.=0.12	

IV. Race

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
White	87.7%	90.4%	89.8%
Black	11.5	8.9	9.3
Other	0.8	0.7	0.9
	(998)	(415)	(313)
Chi-Square	2.53 (4 df) Prob=0.64	1.77 Prob.=0.78	

V. Sex

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Male	45.3%	43.3%	41.5%
Female	54.7	56.7	58.5
	(1002)	(416)	(313)
Chi-Square	0.49 (1 df) Prob.=0.48	1.38 Prob.=0.24	

VI. Marital Status

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Married	57.1%	61.8%	61.3%
Never Married	16.5	13.7	14.4
Divorced	9.1	9.6	9.9
Separated	4.6	2.4	2.6
Widowed	11.2	11.1	10.2
Common Law	1.4	1.4	1.6
	(998)	(416)	(313)
Chi-Square	6.29 (5 df) Prob.=0.28	4.30 Prob.=0.51	

VII. Labor Union

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Union Household	22.1%	19.6%	20.5%
Non-union Household	77.9	80.4	79.5
	(993)	(414)	(312)
Chi-Square	1.08 (1 df) Prob.=0.30	0.33 Prob.=0.56	

VIII. Religion

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Protestant	73.2%	73.1%	73.6%
Catholic	24.6	25.8	25.0
Jew	2.2	1.1	1.4
	(891)	(368)	(276)
Chi-Square	1.99 (2 df) Prob.=0.37	0.67 Prob.=0.72	

IX. Type of Community

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
On a farm	23.7%	23.4%	22.4%
In the country	11.5	12.5	11.5
In a small city	30.5	28.0	29.4
Medium-sized city	9.2	9.6	9.3
Large city	10.6	10.8	11.2
Suburb of large city	5.2	6.3	5.8
Very large city	7.7	7.0	7.7
Suburb of very large city	1.7	2.4	2.9
	(993)	(415)	(313)
Chi-Square	2.50 (7 df) Prob.=0.93	20.9 Prob.=0.95	

X. Occupation

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Professional & Manager	35.1%	39.4%	40.4%
Sales Workers/Clerical	15.6	15.5	14.3
Craftspersons	19.3	17.3	14.8
Blue Collar	25.6	23.2	25.1
Agriculture	4.4	4.6	5.4
	(679)	(284)	
Chi-Square	1.98 (4 df) Prob.=0.74	3.69 Prob.=0.45	

XI. Family Income

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Less \$5,000	10.1%	12.0%	11.5%
\$5,000-9,999	14.1	12.8	12.2
\$10,000-14,999	15.6	12.8	10.8
\$15,000-19,999	11.7	9.1	9.4
\$20,000-24,999	13.7	13.9	14.2
\$25,000-29,999	8.0	9.4	9.0
\$30,000-34,999	8.8	9.4	10.8
\$35,000-49,999	10.6	12.6	12.5
\$50,000 +	7.5	8.0	9.7
	(879)	(374)	(288)
Chi-Square	5.95 (8 df) Prob.=0.65	8.89 Prob.=0.35	

XII. Family Status

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
R family head, no spouse	34.0%	31.5%	32.9%
R family head, living w/spouse	30.0	32.2	30.7
R not family head	35.9	36.3	36.4
	(1002)	(416)	(313)
Chi-Square	1.03 (2 df) Prob.=0.60	0.14 Prob.=0.93	

Political VariablesI. Party Identification

	Not Chosen for Pilot	Chosen for Pilot	Interviewed in Pilot
	-----	-----	-----
Strong Democrats	20.0%	20.5%	19.9%
Weak Democrats	24.4	23.1	23.4
Independent Democrats	10.7	11.6	13.5
Pure Independents	10.8	11.6	11.5
Independent Republicans	7.5	8.9	8.7
Weak Republicans	14.8	13.0	11.9
Strong Republicans	9.4	9.9	10.3
Apoliticals	2.3	1.2	0.6
	(997)	(415)	(312)
Chi-Square	6.22 (8 df) Prob.=0.62	10.46 Prob.=0.23	
Mann Whitney	205,082.5 (0.262) Sig.=0.79	153,267.000 (0.3942) Sig.=0.69	

II. Liberal-Conservative Self-Placement 7-Point Scale

	Not Chosen for Pilot -----	Chosen for Pilot -----	Interviewed in Pilot -----
1 Liberal	2.4%	1.4%	1.3%
2	9.5	7.9	8.5
3	12.3	10.5	11.7
4	34.5	35.7	35.4
5	17.9	24.2	25.1
6	20.3	15.9	13.9
7 Conservative	3.1	4.3	4.0
	(620)	(277)	(223)
Chi-Square	8.68 (6 df) Prob.=0.19	9.55 Prob.=0.15	
Mann Whitney	82,935.5 (0.84%) Sig.=0.399	68,512.5 (0.20%) Sig.=0.84	

III. Turnout

	Not Chosen for Pilot -----	Chosen for Pilot -----	Interviewed in Pilot -----
Yes	59.5%	62.6%	64.5%
No	40.5	37.4	35.5
	(992)	(414)	(313)
Chi-Square	1.16 (1 df) Prob.=0.28	2.55 Prob.=0.11	

IV. Interest in Political Campaigns in 1982

	Not Chosen for Pilot -----	Chosen for Pilot -----	Interviewed in Pilot -----
Very Much	25.1%	28.0%	31.1%
Somewhat	43.4	46.3	43.3
Not Much	31.5	25.8	25.6
	(1000)	(415)	(312)
Chi-Square	4.68 (2 df) Prob.=0.09	5.93 Prob.=0.05	
Mann Whitney	194,561.5 (1.98%) Sig.=0.047	142,753.5 (2.43%) Sig.=0.015	

**The second set of chi-square and Mann Whitney statistics applies to the comparison of Pilot respondents and 1982 Nonpilot replicates for analysis of the impact of differential response rates across demographic and political groups.

